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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/931,181	08/17/2001	Leonard Metcalfe	8007P17	1422

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EXAMINER

SMITH, ZANDRA V

ART UNIT	PAPER NUMBER
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2877

DATE MAILED: 02/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/931,181

Applicant(s)

METCALFE ET AL.

Examiner

Zandra V. Smith

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-9, 11-15, 17-19 and 21-27 is/are rejected.
- 7) ☒ Claim(s) 6, 10, 16 and 20 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

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DETAILED ACTION

Preliminary Amendment

The preliminary amendment filed 26 September 2002 has been entered.

Claim Objections

Claims 1 and 5 are objected to because of the following informalities: it is unclear is “an object” in line 8 is the same as “an object” in line 5 of claim 1. There is no antecedent for “previous data” in claim 5. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 21-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear which “plurality” is being referred to in claim 21, line 10, also it is unclear which “image data” is being referred to in claim 21, line 11. Claims 22-27 are included for their dependence on claim 21.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 7-9, 11-15, and 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by *Buckley et al. (6,064,759)*.

As to **claim 1**, Buckley discloses a computer aided inspection machine for analyzing an object to determine its dimensions by triangulation (col. 5, lines 65-68), comprising:

providing an addressable matrix array type camera capable of scanning individual pixels or groups of pixels (col. 6, lines 17-20);

providing an image on the array indicative of a location of at least one zone of an object to be measured;

scanning a limited number of pixels of the matrix array to determine image data relating to the zone, without scanning a complete scan line; and

determining dimension data or location data of the object (col. 6, lines 20-50).

As to **claim 2**, Buckley discloses everything claimed, as applied above, in addition the illuminted zone is provided by a laser (3, col. 5, line 60).

As to **claims 3-4 and 13-14**, Buckley discloses everything claimed, as applied above, in addition the choice of pixel data of the array to be scanned is based on knowledge of image data taken from a previous scan or previous object (col.7, lines 35-65, col. 9, lines 10-30, col. 13, lines 10-20).

As to **claims 5, 7, 15 and 17**, Buckley discloses everything claimed, as applied above, in addition the pixel data of the array is acquired at a higher pixel density resolution (col. 8, lines 15-35).

As to **claims 8 and 18**, Buckley discloses everything claimed, as applied above, in addition the illumination energy is controlled using image data (col. 17, lines 55-60).

As to **claims 9 and 19**, Buckley discloses everything claimed, as applied above, in addition the integration time of the pixels is controlled using image data (col. 18, lines 10-30).

As to **claims 11-12**, Buckley discloses a computer aided inspection machine for analyzing an object to determine its dimensions by triangulation (col. 5, lines 65-68), comprising:

an addressable matrix array type camera capable of scanning individual pixels or groups of pixels (col. 6, lines 17-20);

a laser light source (3, col. 5, line 60);

means for scanning a limited number of pixels of the matrix array to determine image data relating to the zone, without scanning a complete scan line; and

means for determining dimension data or location data of the object (col. 6, lines 20-50).

Although Buckley fails to specifically provide an image, a camera inherently has a lens to provide an image.

Allowable Subject Matter

Claims 21-27 would be allowable if amended to overcome the 112 rejection above.

Claims 6, 10, 16 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art of record, taken alone or in combination, fails to disclose or render obvious higher A-D resolution, choosing pixel data to be scanned based on knowledge of data at another location in the image, or scanning a first plurality of rows or columns of the array to determine first image

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data and using the first image data, scanning a second plurality of rows or columns of the array to determine second image data and determining from the second image data the location of a second point of interest, in combination with the rest of the limitations of the claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Beraldin et al. (6,297,488 B1).

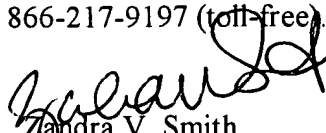
Fax/Telephone Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zandra V. Smith whose telephone number is (571) 272-2429.

The examiner can normally be reached on 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Zandra V. Smith
Primary Examiner
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February 19, 2004